

Appln No. 10/665,686
Amdt dat November 5, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optical fiber retaining method comprising [steps of]:

[forming ribbonized optical fibers by] applying a first adhesive to a plurality of optical fibers in a ribbon alignment [which align like a ribbon] to form ribbonized optical fibers;

inserting the ribbonized optical fibers and a support into a heat shrink tube;

holding the ribbonized optical fibers and support firmly in the heat shrink tube by heating the heat shrink tube to shrink; and

fixing the shrunken heat shrink tube on a stand by a second adhesive; wherein

the first adhesive is applied to the plurality of optical fibers at inside and outside of the heat shrink tube.

2. (Currently Amended) The optical fiber retaining method of claim 1, wherein the plurality of optical fibers are [the ones] pulled out from an optical cable.

3. (Currently Amended) The optical fiber retaining method of claim 1, wherein the [strength of the] first adhesive has a strength [is in the middle of the] between a strength of the support and [that] a strength of the optical fibers.

4.(Currently Amended) The optical fiber retaining method of claim 2, wherein the support comprises a column having a semicylindrical section.

5.(Currently Amended) The optical fiber retaining method of claim 4 wherein, the ribbonized optical fibers are disposed adjacent to a flat side of the support in the heat shrink tube.

6.(Currently Amended) The optical fiber retaining method of claim 1, wherein the support comprises glass.

7.(Currently Amended) The optical fiber retaining method of claim 1, wherein the support is inserted in the heat shrink tube in advance and then the ribbonized optical fibers are inserted in an empty space in the heat shrink tube.

8.(Currently Amended) The optical fiber retaining method of claim 1, wherein the support and heat dissolving tube are inserted in the heat shrink tube in advance and then the ribbonized optical fibers are inserted in the heat dissolving tube.

9.(Currently Amended) An optical fiber retainer comprising:

an adhesive to adhere a plurality of optical fibers together [which align like] in a ribbon alignment to form ribbonized optical fibers;

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a heat shrink tube to contain the ribbonized optical fibers and a support to firmly hold the ribbonized optical fibers and the support through heat-shrinking; and

a stand to hold the heat shrink tube; wherein

the adhesive is applied to the plurality of optical fibers at inside and outside of the heat shrink tube after the heat-shrinking.

10. (Currently Amended) The optical fiber retainer [apparatus] of claim 9, wherein the [strength of the] adhesive has a strength [is in the middle of the] between a strength of the support and [that] a strength of the optical fibers

11. (Currently Amended) The optical fiber retainer [apparatus] of claim 9, wherein the support comprises a column having a semicylindrical section.

12. (Currently Amended) The optical fiber retainer [apparatus] of claim 9, wherein the ribbonized optical fibers are disposed adjacent to a flat side of the support in the heat shrink tube.

13. (Currently Amended) The optical fiber retainer [apparatus] of claim 9, wherein the support comprises glass.

14. (Currently Amended) The optical fiber retainer [apparatus] of claim 9, further comprising a heat dissolving tube inserted in the heat shrink tube, the ribbonized optical fibers being inserted in the heat dissolving tube.

15. (Currently Amended) An optical fiber retainer comprising:

a first optical fiber holder to contain [[a]] first ribbonized optical fibers and a first support with a semicylindrical section and to hold the first ribbonized optical fibers disposed adjacent to a side of the first support;

a second optical fiber holder to contain [[a]] second ribbonized optical [[fiber]] fibers and a second support with semicylindrical section and to hold the second ribbonized optical fibers disposed adjacent to a side of the second support; and

a stand to hold the first optical fiber holder and the second optical fiber [[holders]] holder so that the first ribbonized optical fibers held by the first optical fiber holder and the second ribbonized optical fibers held by the second optical fiber holder are close to each other.

16. (Currently Amended) The optical fiber retainer of claim 15, wherein each of the first and second supports comprises a column having a semicylindrical section.

17. (Currently Amended) The optical fiber retainer [apparatus] of claim 15, wherein the first optical fiber holder holds the first ribbonized optical fibers adjacent to a flat side of the first support and the second optical fiber holder holds the second ribbonized optical fiber adjacent to a flat side of the second support.

18. (Currently Amended) The optical fiber retainer [apparatus] of claim 15, wherein each of the first support and the second [[supports]] support comprises glass.

19. (Currently Amended) The optical fiber retainer [apparatus] of claim 15, wherein the first optical fiber holder comprises:

an adhesive to adhere a plurality of optical fibers [that align like] together in a ribbon [each other] alignment to form the first ribbonized optical fibers; and

a heat shrink tube to contain the first ribbonized optical fibers and the first support to hold the first ribbonized optical fibers and first support firmly by heat-shrinking; wherein

the adhesive is applied to the plurality of optical fibers at inside and outside of the heat shrink tube after the heat-shrinking.

20. (Currently Amended) The optical fiber retainer [apparatus] of claim 19, wherein the [strength of the] adhesive has a strength [is in the middle of the] between a strength of the first support and [that] a strength of each optical fiber forming the first ribbonized optical fibers.

21. (Currently Amended) The optical fiber retainer [apparatus] of claim 19, wherein the first support comprises a column having a semicylindrical section.

22.(Currently Amended) The optical fiber retainer [apparatus] of claim 19, wherein the first ribbonized optical fibers are disposed adjacent to a flat side of the first support in the heat shrink tube.

23.(Currently Amended) The optical fiber retainer [apparatus] of claim 19, wherein the first optical fiber holder further comprises a heat dissolving tube inserted in the heat shrink tube, the first ribbonized fibers being inserted in the heat dissolving tube.

24.(New) A method of mounting a plurality of optical fibers comprising:

providing a mounting area, the mounting area having a mounting area wall;

forming the plurality of optical fibers into ribbonized optical fibers within an optical fiber holder, the optical fiber holder having an optical fiber holder surface disposed proximal to the ribbonized optical fibers; and

affixing the optical fiber holder in the mounting area such that the optical fiber holder surface is disposed adjacent to the mounting area wall.

25.(New) The method of Claim 24, further comprising affixing the optical fiber holder surface in the mounting area by adhesive.

26.(New) The method of Claim 24, further comprising locating within the optical fiber holder a semicylindrical

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support having a flat surface disposed adjacent to the ribbonized optical fibers and a semicylindrical surface disposed distal from the optical fiber holder surface.

27.(New) The method of Claim 24, wherein the mounting area is a mounting stand having a plurality of walls, the mounting area wall being one of the plurality of walls.

28.(New) A method of mounting a plurality of optical fibers comprising:

providing a mounting area wall located between a first mounting area and a second mounting area, the mounting area wall having a first mounting wall surface in the first mounting area and a second mounting wall surface in the second mounting area;

forming the plurality of optical fibers into:

a first set of ribbonized optical fibers within a first optical fiber holder, the first optical fiber holder having an first optical fiber holder surface disposed proximal to the first set of ribbonized optical fibers; and

a second set of ribbonized optical fibers within a second optical fiber holder, the second optical fiber holder having a second optical fiber holder surface disposed proximal to the second set of ribbonized optical fibers;

affixing the first optical fiber holder surface in the first mounting area such that the first optical fiber holder surface is disposed adjacent to the first mounting wall surface; and

affixing the second optical fiber holder surface in the second mounting area such that the second optical fiber holding

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surface is disposed adjacent to the second mounting wall surface.

29.(New) The method of Claim 28, further comprising affixing both the first optical fiber holder surface in the first mounting area and the second optical fiber holder in the second mounting area by adhesive.

30.(New) The method of Claim 28, further comprising:

locating within the first optical fiber holder a first semicylindrical support having a flat surface disposed proximal to the first set of ribbonized optical fibers and having a semicircular surface disposed distal from the first optical fiber holder surface; and

locating within the second optical fiber holder a second semicylindrical support having a flat surface disposed proximal to the second set of the ribbonized optical fibers and having a semicircular surface disposed distal from the second optical fiber holder surface.

31.(New) The method of Claim 28, wherein the first mounting area and the second mounting area are formed by a mounting stand having plurality of walls, the mounting area wall being a common wall from the plurality of walls.

32.(New) An apparatus for mounting a plurality of optical fibers comprising:

a mounting area having a mounting area wall; and

ribbonized optical fibers formed within an optical fiber holder, the optical fiber holder having an optical fiber holder surface disposed proximal to the ribbonized optical fibers and being affixed in the mounting area such that the optical fiber holder surface is disposed adjacent to the mounting area wall.

33.(New) The apparatus of Claim 32, wherein the optical fiber holder is mounted in the mounting area by adhesive.

34.(New) The apparatus of Claim 32, wherein the optical fiber holder includes a semicylindrical support having a flat surface disposed adjacent to the ribbonized optical fibers and having a semicylindrical surface disposed distal from the optical fiber holder surface.

35.(New) The apparatus of Claim 32, wherein the mounting area is a mounting stand having plurality of walls, the mounting area wall being one of the plurality of walls.

36.(New) An apparatus for mounting a plurality of optical fibers comprising:

a mounting area wall located between a first mounting area and a second mounting area, the mounting area wall having a first mounting wall surface in the first mounting area and a second mounting wall surface in the second mounting area;

a first set of ribbonized optical fibers located within a first optical fiber holder, the first optical fiber holder having a first optical fiber holder surface disposed proximal to the first set of ribbonized optical fibers; and

a second set of ribbonized optical fibers located within a second optical fiber holder, the second optical fiber holder having a second optical fiber holder surface disposed proximal to the second set of ribbonized optical fibers;

wherein the first optical fiber holder is mounted in the first mounting area such that the first optical fiber holder surface is disposed adjacent to the first mounting wall surface and the second optical fiber holder is mounted in the second mounting area such that the second optical fiber holder surface is disposed adjacent to the second mounting wall surface.

37.(New) The apparatus of Claim 36, wherein both the first optical fiber holder is mounted in the first mounting area and the second optical fiber holder is mounted in the second mounting area by adhesive.

38.(New) The apparatus of Claim 36, wherein the first optical fiber holder includes a first semicylindrical support having a flat surface disposed proximal to the first set of ribbonized optical fibers and having a semicircular surface disposed distal from the first optical fiber holder surface; and

the second optical fiber holder includes a second semicylindrical support having a flat surface disposed proximal to the second set of the ribbonized optical fibers and having a semicircular surface disposed distal from the second optical fiber holder surface.

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39.(New) The apparatus of Claim 36, wherein the first mounting area and the second mounting area are formed by a mounting stand having plurality of walls, the mounting area wall being a common wall from the plurality of walls.